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EXEMPT FROM FILING FEES UNDER
GOVERNMENT CODE SECTION 6103

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SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

10 Coordination Proceeding
11 Special Title (Rule 1550(b))

) Judicial Council Coordination
) Proceeding No. 4408

12 ANTELOPE VALLEY GROUNDWATER CASES

Included actions:

13 Los Angeles County Waterworks District No. 40 v.
14 Diamond Farming Co., et al.

Superior Court of California, County of Los Angeles,
Case No. BC 325 201

15 Los Angeles County Waterworks District No. 40 v.
16 Diamond Farming Co., et al.

Superior Court of California, County of Kern, Case
No. S-1500-CV-254-348

17 Wm. Bolthouse Farms, Inc. v. City of Lancaster

Diamond Farming Co. v. City of Lancaster

18 Diamond Farming Co. v. Palmdale Water Dist.


Superior Court of California, County of Riverside,
19 consolidated actions, Case nos. RIC 353 840, RIC
20 344 436, RIC 344 668

) NOTICE OF FILING AMENDED
) RECOMMENDATION FOR THE
) BOUNDARY OF THE AREA OF
) ADJUDICATION

21 Defendant United States of America hereby provides notice of the filing of an amended
22 recommendation for the boundary of the area of adjudication, attached herewith. This amended
23 recommendation supercedes the original titled Recommendation for the Boundary of the Area of
24 Adjudication submitted as Attachment A to the Declaration of June Oberdorfer on June 29, 2006.
25 The original recommendation inadvertently references a meeting of the parties' technical experts
26 and describes the location of the Antelope Valley Groundwater Basin boundary as the view of a
27 majority of participants at that meeting. The location of the Antelope Valley Groundwater Basin
28 boundary was independently analyzed and located by June Oberdorfer using available

1 information described in her Declaration and recommendation. The original recommendation
2 was not intended to reflect the views of other parties. The amended recommendation corrects
3 this oversight and more accurately describes the bases for the boundaries, including the Antelope
4 Valley Groundwater Basin boundary and the recommended Antelope Valley Watershed
5 Contributory Boundary to the Antelope Valley Groundwater Basin, submitted by the United
6 States. The United States regrets this error and any inconvenience to the Court and parties.

7 Respectfully submitted this 6th day of July, 2006.

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11 R. LEE LEININGER
12 Trial Attorney
13 U. S. Department of Justice
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Project No. 93297.01
July 6, 2006

Attachment A

Amended Recommendation for the Boundary of the Area of Adjudication

The recommended boundary for the Antelope Valley water adjudication is based on the boundaries of the watershed for surface water that flows into the Antelope Valley groundwater basin. The watershed boundary corresponds to the topographic divide, generally located along the ridgeline of the mountains, where surface water on the interior of the divide would flow downhill towards the groundwater basin. Two instances of using the watershed divide as the adjudication boundary merit specific discussion. One, is the northern and northwestern portions of the Antelope Valley watershed, as mapped by the USGS (e.g., Duell 1987, Leighton and Phillips 2003); the northern and northwestern portions of the USGS watershed are excluded because percolating surface water in this area will recharge the Freemont Valley groundwater basin and not the Antelope Valley groundwater basin. Two, the southeast corner of the Antelope Valley groundwater basin does not have a well-defined hydrogeologic boundary. Therefore, no recommendation for the location of the adjudication boundary is proposed for this area at this time.

The proposed adjudication boundary is shown on the map provided as Attachment A accompanying the Declaration of Ric Williams. The proposed adjudication boundary (titled the Antelope Valley Watershed Contributory to the Antelope Valley Groundwater Basin) is shown as a green line.

The boundary of the Antelope Valley groundwater basin is also shown on the map provided as Attachment A accompanying the Declaration of Ric Williams. The Antelope Valley groundwater basin boundary is shown as a red line. That line is based on the boundary of the groundwater basin illustrated in Bulletin 118 (California Department of Water Resources [DWR] 2003). Two areas are excluded from the area shown on the DWR map: the western portion of Leona Valley, which does not drain to the Antelope Valley, and a dendritic drainage to the south of the Plant 42 area on Attachment A accompanying the Declaration of Ric Williams which drains to the south and not toward the Antelope Valley. These areas lie outside of the defined watershed. A third region, in the North Muroc and Peerless Valley subbasins, is modified from the DWR map, however, this region lies within the watershed boundary. A fourth region in the southeast corner of the basin is specifically discussed below.

Boundaries of the Alluvial Groundwater Basin

The boundary of the groundwater basin in Attachment A is based on the DWR Bulletin 118 boundary. This boundary consists primarily of the outer edge of the permeable, basin-fill, alluvial materials. This boundary is drawn to include alluvial materials, both currently saturated

and materials that could become saturated in the future and provide storage and transmittal of groundwater. Two areas that are potentially in contention are discussed below.

Willow Springs Subbasin

The groundwater basin boundary is set to the north of the Willow Springs subbasin, thus including that subbasin and portions of the Oak Creek and Gloster subbasins in the Antelope Valley groundwater basin, as delineated by DWR, because:

- The northwest trending groundwater divide that bisects the Oak Creek subbasin separates the groundwater to the southwest of the divide which flows toward Antelope Valley, and the groundwater to the northeast of the divide which flows away from Antelope Valley;
- North to south leakage through the Rosamond/Willow Springs fault provides water input to the adjacent Neenach subbasin;
- Groundwater flows from the Willow Springs subbasin to the southeast through the alluviated pass and enters the Lancaster subbasin near the city of Rosamond; and
- Potentially significant recharge by Oak Creek as it flows south across the alluvial fan should be taken into account in the water budget for the groundwater basin.

The Willow Springs subbasin (or subunit, as it is referred to in some studies) has been identified in most of the U.S. Geological Survey (USGS) literature on the area. This subbasin was excluded from the Antelope Valley groundwater basin and included in the Fremont Valley groundwater basin by Bloyd (1967). Many subsequent USGS researchers (e.g., Durbin 1978, Carlson and others 1998, Leighton and Phillips 2003) also did not include it in the Antelope Valley groundwater basin, although the area has been included within the Antelope Valley (based on surface water drainage boundaries) by Duell (1987) and Templin and others (1995). On the other hand, DWR (2003) includes the area of the Willow Springs subbasin and portions of the Oak Creek subbasin and of the Gloster subbasin to the north as part of the Antelope Valley groundwater basin.

The groundwater basin boundary in the Willow Springs area is in part based on the northwest-trending groundwater divide that bisects the Oak Creek subbasin as well as bedrock outcrops. This groundwater divide is likely influenced by groundwater recharge from the surface runoff from Oak Creek. Groundwater in the Willow Springs subbasin flows to the southeast, towards the town of Rosamond, based on water levels from wells in this area. Duell (1987) provides one of the most detailed descriptions in the USGS literature of the groundwater subdivisions in the Willow Springs area, indicating the Willow Springs subbasin as one of the groundwater subunits of Antelope Valley. According to Duell, 1) the southern boundary of the Willow Springs subbasin is the Rosamond fault (also known as the Willow Springs fault in some investigations) and bedrock hills, 2) the northern boundary is a northwest-southeast-trending groundwater divide and bedrock hills, and 3) groundwater flows to the southeast through the alluviated gap near Rosamond to where it crosses the Rosamond fault and enters the Lancaster subbasin. Historic

groundwater elevations obtained from the USGS and DWR online databases (<http://nwis.waterdata.usgs.gov/ca/nwis/gw> and <http://wdl.water.ca.gov/gw/>, respectively) are consistent with this interpretation.

In their modeling of the Antelope Valley groundwater basin, Leighton and Phillips (2003) included natural recharge by seepage across the Rosamond/Willow Springs fault. A significant water level difference across the fault (on the order of 300 feet) indicates that it is a barrier to flow, although it is probably a leaky barrier. It is likely that seepage occurs across this low-permeability fault zone, particularly with such a significant difference in hydraulic head to provide a driving force for flow. This seepage across the fault plus the interpreted flow from the Willow Springs subbasin to the Lancaster subbasin means that the Willow Springs subbasin should be included within the Antelope Valley groundwater basin rather than being excluded. Recharge provided by seepage from Oak Creek is a potentially significant contribution to the water budget for the groundwater basin, and this input should not be omitted by excluding this area.

Southeast Corner at Los Angeles – San Bernardino County Line

The Antelope Valley groundwater basin boundary in the southeast corner is not well-defined. The Los Angeles – San Bernardino County line, coincident with the western edge of the previously adjudicated Mojave groundwater basin, would not represent a hydrogeologic boundary to the Antelope Valley groundwater basin. Pumping on one side of this county line could have a significant effect on the groundwater resources on the other side of the line. Specifically, pumping in San Bernardino County just east of this county line could have significant negative impacts on the groundwater resources in the Los Angeles county portion of the Antelope Valley groundwater basin. A number of USGS investigations (e.g., Duell 1987, Templin and others 1995, Leighton and Phillips 2003) have drawn the southeastern boundary of the basin to the east of the county line, within San Bernardino County. Bloyd (1967) referred to a groundwater divide located outside of the Antelope Valley-East Kern Water Agency (AVEK) area as being the boundary of the Buttes subunit, although he specifically did not draw that boundary on his maps. That groundwater divide, according to Bloyd, separates the Antelope Valley and the El Mirage basins. Similarly, DWR (2003) drew the boundary between the Antelope Valley and the El Mirage basins within San Bernardino County, east of the county line. Rather than using the county line, the boundary of the groundwater basin needs to be established in this area based on hydrogeologic considerations. The groundwater basin boundary has not been identified in this area on Attachment A accompanying the declaration of Ric Williams.

Boundaries of the Watershed

The watershed that encompasses streams (ephemeral, intermittent, and perennial) that flow into the area defined by the Antelope Valley groundwater basin, as described in the preceding section, is included within the proposed adjudicated area to protect the groundwater resource.

These streams provide recharge to the Antelope Valley groundwater basin. Potential diversions of surface water could diminish the amount of water recharging the groundwater of the basin, thus having a negative impact on the quantity of the groundwater resource.

References

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- , 1995, Ground-water-level monitoring, basin boundaries, and potentiometric surfaces of the aquifer system at Edwards Air Force Base, California, 1992: U.S. Geological Survey Water-Resources Investigations Report 95-4131, 61 p.
- Templin, W.E., Phillips, S.P., Cherry, D.E., DeBortoli, M.L., and Others, 1995, Land Use and Water Use in the Antelope Valley, California: U.S. Geological Survey Water-Resources Investigations Report 94-4208, 98 p.

PROOF OF SERVICE

I, Linda C. Shumard, declare:

I am a resident of the State of Colorado and over the age of 18 years, and not a party to the within action. My business address is U.S. Department of Justice, Environmental and Natural Resources Section, 1961 Stout Street, 8th Floor, Denver, Colorado 80294.

On July 7, 2006, I caused the foregoing documents described as follows,

1. NOTICE OF FILING AMENDED RECOMMENDATION FOR THE BOUNDARY OF THE AREA OF ADJUDICATION.

to be served on the parties via the following service::

☒

BY ELECTRONIC SERVICE AS FOLLOWS by posting the documents(s) listed above to the Antelope Valley Groundwater matter.

☐

BY MAIL AS FOLLOWS (to parties so indicated on attached service list): By placing true copies thereof enclosed in sealed envelopes addressed as indicated on the attached service list.

☐

BY OVERNIGHT COURIER: I caused the above-referenced document(s) be delivered to FEDERAL EXPRESS for delivery to the above address(es).

Executed on July 7, 2006, at Denver, Colorado.

/S/

Linda C. Shumard
Legal Support Assistant